

===== WPI =====

TI - Metal moulds for duplicating fine patterns - are mfd. by coating silicon substrate with photoresist, patterning, reactive ion etching, coating with indium-titanium-oxide film, etc.

AB - J02170994 Claimed is a process which comprises: (1) coating a Si substrate with a photoresist, and then patterning the photoresist by exposing it to light with a photomask and developing thereafter; (2) processing the Si-substrate to a desired depth by reactive ion etching (RIE) or by ion milling, using the pattern on the photoresist as the mask; (3) removing the pattern of the photoresist to obtain the master plate form which metal moulds are to be produced; (4) coating the surface of the master plate with indium-titanium-oxide (ITO) film to render the surface electroconductive; and (5) effecting Ni electrodeposition thereon so as to obtain the metal mould.

- USE/ADVANTAGE - Provides at a higher yield, metal moulds for duplicating fine patterns, used in the mass prodn. of optical disks, hologram disks, and the like. (5pp Dwg.No.0/4)

PN - JP2170994 A 19900702 DW199032 000pp

PR - JP19880322654 19881221

PA - (MATU) MATSUSHITA ELEC IND CO LTD

MC - A11-B01 A12-L03C G06-D G06-D04 G06-D07 G06-E02 G06-G G06-G18 M11-D

DC - A32 G06 M11 P52

IC - B21D37/20 ;B29C33/38 ;B29L17/00 ;C25D1/10

AN - 1990-243752 [32]

===== PAJ =====

TI - PRODUCTION OF METAL MOLD FOR DUPLICATING FINE PATTERN

AB - PURPOSE: To enhance yield in a stage for making the surface of an Si substrate conductive and to make it possible to form a pattern to a large depth by patterning the substrate by reactive ion etching or other method, forming an ITO(indium tin oxide) film and electro-depositing Ni.

- CONSTITUTION: A Si substrate 1 is coated with a photoresist 2 and this photoresist 2 is exposed with UV 4 through the pattern of a photomask 3 and developed to form a pattern of the photoresist 2 on the substrate 1. The substrate 1 is patterned to a prescribed depth by reactive ion etching or ion milling with the photoresist pattern as a mask, the pattern is removed and a master for a metal mold for duplication is produced. An ITO film 6 is formed on the pattern side of the substrate 1 to make the surface conductive. Ni is electrodeposited on the film 6 to form an Ni mold 7, the substrate 1 is stripped and the Ni mold 7 for duplication is obtd.

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ABV - 014439

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GR - C0761

PA - MATSUSHITA ELECTRIC IND CO LTD

IN - TOYODA RYUICHI

I - C25D1/10 ;B21D37/20 ;B29C33/38

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